


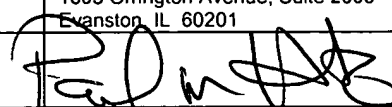
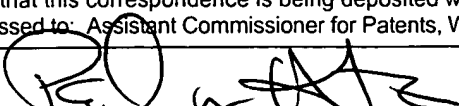
<b>TRANSMITTAL FORM</b> 	Attorney Docket No.	DP-306477 (7500/124)
	Application Number	09/997,745
	Filing Date	NOVEMBER 29, 2001
	First Named Inventor	SANJIV G. TEWANI
	Group Art Unit	3683
	Examiner	TORRES, M.

**RECEIVED**  
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GROUP 3600

ENCLOSURES (check all that apply)		
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<input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. <u>50-0831</u> (DELPHI TECHNOLOGIES INC.). A duplicate copy of this sheet is enclosed.		
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Total		Minus		0	x \$9=	0	x \$18=	
Indep.		Minus		0	x \$42=	0	x \$84=	
First Presentation of Multiple Dep. Claim					+\$140=	---	+\$280=	
					total add'l fee	\$ 0	total add'l fee	\$ 0

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Firm or Individual name	PAUL M. HLETKO Registration No. 51,806 CARDINAL LAW GROUP 1603 Orrington Avenue, Suite 2000 Evanston, IL 60201		
Signature		Date	March 27, 2003
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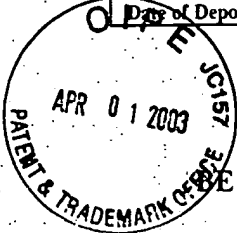
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Name of Person Signing

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# 1/Appeal  
Brief  
4-9-03  
[Signature]



PATENT-APPEAL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: SANJIV G. TEWANI et al. Group Art Unit: 3683

Serial No.: 09/997,745 Filed: November 29, 2001 Examiner: Torres, M.

Title: POWERTRAIN MOUNT WITH FLOATING TRACK

Attorney Docket No.: DP-306477 (7500/124)

APPEAL BRIEF

Assistant Commissioner for Patents and Trademarks  
Washington, D.C. 20231  
Sir:

This is an appeal from the final rejection of claims 1-14 in the Office Action mailed December 30, 2002.

REAL PARTY IN INTEREST

The real party in interest is Delphi Technologies, Inc.

RELATED APPEALS AND INTERFERENCES

No other appeals or interferences are known which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

STATUS OF CLAIMS

This application was filed November 29, 2001 with claims 1-14. Independent claims 1, 5 and 9 were amended, but were finally rejected on new grounds. Claims 1-14 as amended (reproduced in Appendix A) are the subject of the present appeal.

STATUS OF AMENDMENTS

There are no unentered amendments.

**SUMMARY OF INVENTION**

The invention is a powertrain mount comprising an orifice plate 28 with an orifice track 36. Fluid moves through the orifice track 36 and through a slug 42 slidably disposed in the orifice track:

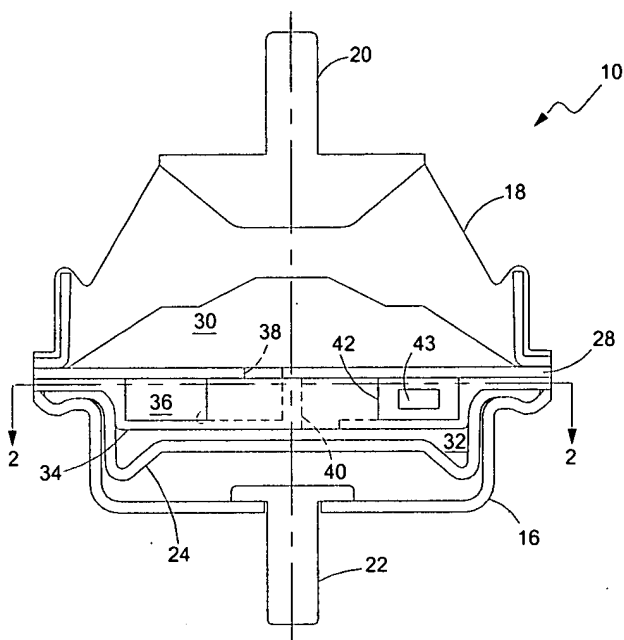


FIG. 1

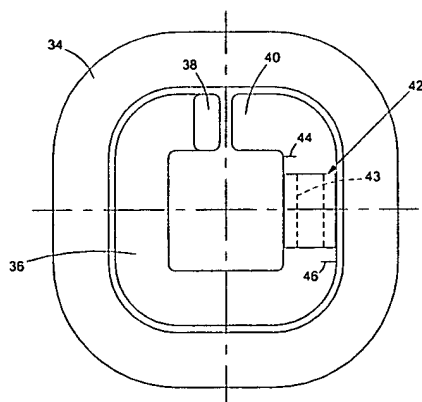
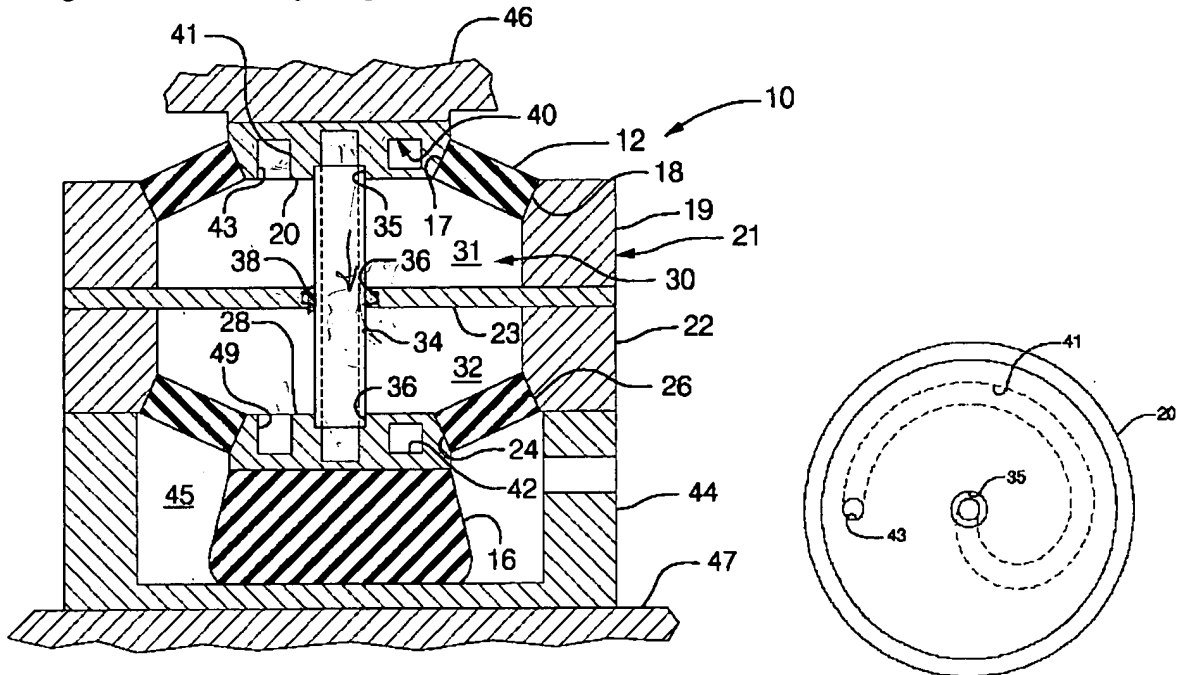


FIG. 2

All of the independent claims recite an orifice plate "defining an orifice track having a first cross-sectional area" and a slug "slidably disposed in the orifice track, the slug having a bore with a second cross-sectional area less than the first cross-sectional area."

**ISSUE**

Claims 1-13 were finally rejected under §102(b) over U.S. Patent No. 6,056,279 to Lee et al. (Appendix B). This reference shows a hollow tube 34 extending through a partition wall 23 and secured at its opposite ends in seats 35 and 36, respectively, of pistons 20 and 28. The tube 34 connects a spiraling bore 41 formed in the piston 20 with a spiraling bore 42 formed in the piston 28. The bore 41 opens to a chamber 31 at port 43, and the bore 42 opens to a chamber 32 at port 49. Appendix B at column 3, line 9 et seq. The tube 34 can move through a seal 38 in an opening 36 [sic: duplicate reference numeral] in the partition wall 23:

**FIG. 1****FIG. 2**

The Examiner maintains that this reference "discloses an orifice track (interpreted by the examiner as the orifice through which slug 34 extends)." Office Action mailed December 30, 2002 at page 2.

The central issue in this appeal is whether the opening 36 of Lee et al. '279 is an "orifice track."

**GROUPING OF CLAIMS**

Claims 1, 5 and 9 are the independent claims involved in the appeal. The dependent claims stand or fall with their respective independent claim. Claim 14, which was rejected under §103(a) over Lee et al. '279, depends from claim 9.

### ARGUMENT

The independent claims recite an orifice plate "defining an orifice track having a first cross-sectional area" and a slug "slidably disposed in the orifice track, the slug having a bore with a second cross-sectional area less than the first cross-sectional area." The specification of the application makes clear that the orifice track 36 accommodates the passage of fluid:

The orifice track permits the flow of fluid between the primary chamber 30 and the secondary chamber 32, as is well known. To this end, an entrance 38 is provided in the orifice plate 28, and an exit 40 is provided in the containment plate 34.

A floating orifice track or slug 42 is disposed in the orifice track 36. The slug 42 has an outside dimension closely sized to the inside dimension of the orifice track, and is movable along a portion of the orifice track. The slug 42 also has a bore 43 which may have either a constant or a varying cross-sectional area. In either event, the effective cross-sectional area of the bore 43 is less than the cross-sectional area of the orifice track 36.

To limit the movement of the slug, mechanical stops 44 and 46 may be provided in addition to the usual bends in the orifice track. The length of free travel of the slug 42 is chosen such that its movement is not restricted during small amplitude input displacements to the mount. In this case, the relatively large cross-sectional area of the orifice track 36 primarily influences the flow characteristics of the fluid. The track is designed such that the fluid in the track goes into resonance at the frequency where a low dynamic stiffness is desired.

Application at page 4, line 23 through page 5, line 14.

The opening 36 of the reference does not accommodate fluid flow. In fact, it is designed to do just the opposite:

The tube 34 extends through the working chambers 31 and 32 and through an opening 36 in partition wall 23. An annular seal 38 is carried in a groove of partition wall 23 within opening 36 and engages tube 34 providing a fluid seal between the working chambers 31 and 32 so that fluid cannot travel along the exterior of the tube 34 through the opening 36, whereas the tube 34 can move through the opening 36. The seal 38 allows the tube 34 to slide through the opening 36 as the pistons 20 and 28 move in concert.

Appendix B at column 3, lines 15-24 (emphasis added).

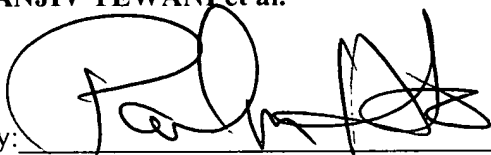
The Examiner's position that the opening 36 of Lee et al. '279 is an "orifice track" is thus clearly in error.

**SUMMARY**

The Examiner maintains that the only reference shows something that it plainly does not. Lee et al. '279 neither shows nor suggests the invention recited in the claims, and the final rejection of claims 1-14 should be reversed.

Respectfully submitted,

**SANJIV TEWAN** et al.

By: 

Date: **March 27, 2003**

PAUL M. HLETKO  
Registration No. 51,806  
Attorney for Applicants

**CARDINAL LAW GROUP**

1603 Orrington Ave.

Suite 2000

Evanston, IL 60201

Phone: 847.905.7111

Fax: 847.905.7113

Enclosures: Appendix A - Claims 1-14

Appendix B - U.S. Patent No. 6,056,279 to Lee et al.

Three copies of Brief

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**APPENDIX A**

1. A powertrain mount comprising:
  - an orifice plate defining an orifice track having a first cross-sectional area; and
  - a slug slidably disposed in the orifice track, the slug having a bore with a second cross-sectional area less than the first cross-sectional area.
2. The powertrain mount of claim 1 further comprising at least one stop disposed in the orifice track.
3. The powertrain mount of claim 2 wherein the at least one stop limits travel of the slug in the orifice track.
4. The powertrain mount of claim 1 wherein the bore has a constant cross-sectional area.
5. A powertrain mount comprising:
  - a base plate;
  - a molded member connected to the base plate;
  - an orifice plate connected to one of the base plate or the molded member; the orifice plate defining an orifice track having a first cross-sectional area; and
  - a slug slidably disposed in the orifice track, the slug having a bore with a second cross-sectional area less than the first cross-sectional area.
6. The powertrain mount of claim 5 further comprising at least one stop disposed in the orifice track.
7. The powertrain mount of claim 6 wherein the at least one stop limits travel of the slug in the orifice track.
8. The powertrain mount of claim 5 wherein the bore has a constant cross-sectional area.

9. A mount for a powertrain component of a motor vehicle, the mount comprising:
  - a base plate;
  - a molded member connected to the base plate;
  - an orifice plate connected to one of the base plate or the molded member, the orifice plate defining an orifice track having a first cross-sectional area; and
  - a slug slidably disposed in the orifice track, the slug having a bore with a second cross-sectional area less than the first cross-sectional area.
10. The mount of claim 9 further comprising at least one stop disposed in the orifice track.
11. The mount of claim 10 wherein the at least one stop limits travel of the slug in the orifice track.
12. The mount of claim 9 wherein the bore has a constant cross-sectional area.
13. The mount of claim 9 wherein the powertrain component is an engine.
14. The mount of claim 9 wherein the powertrain component is a transmission.